

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Divisional Application of

JOAN WANG

Parent Serial No.: 08/867,229

Parent Filed: June 2, 1997

For: METHOD OF ETCHING HIGH ASPECT
RATIO OPENINGS IN SILICON

PRELIMINARY AMENDMENT

To: Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Please enter the following amendments.

IN THE CLAIMS

Please amend the following claims.

1 (Amended). An etch mixture for silicon [comprising] copnsisting
essentially of a fluorine-containing gas selected from the group
consisting of SF₆, Si₂F₆ and SiF₄ together with HBr and oxygen.

Cancel claims 7-10.

REMARKS

The claims are 1-6 as amended. An early action on the merits
is respectfully requested.

A clean copy of the claims as amended are set forth on the

Docket No. AM1562D

following page.

Respectfully submitted,

JOAN WANG

By 

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CLEAN COPY OF THE CLAIMS AS AMENDED

- 1 (Amended). An etch mixture for silicon consisting essentially of a fluorine-containing gas selected from the group consisting of SF_6 , Si_2F_6 and SiF_4 together with HBr and oxygen.
2. An etch mixture according to claim 1 wherein the mixture additionally includes a noble gas.
3. An etch mixture according to claim 1 wherein the mixture contains SF_6 .
4. An etch mixture according to claim 3 wherein the mixture additionally includes Si_2F_6 and SiF_4 .
5. An etch mixture according to claim 3 wherein the volume ratio of $\text{HBr}:\text{SF}_6$ is 0.1 to 10.
6. An etch mixture according to claim 3 wherein the volume ratio of HBr and $\text{SF}_6:\text{O}_2$ is 0.1 to 10.